

Work Order ID 53391

November 03, 2009 11:35:37 AM



Page 1

Item ID: D4010-041
 Revision ID: *PRELIM ISSUE 09.11.02 / 09.11.03*
 Item Name: Bearpaw Assembly

Accept



Setup Start



Stop



Start Date: 11/3/2009 Start Qty: 2.00
 Required Date: 11/4/2009 Req'd Qty: 2.00



Cust Item ID:
 Customer:

PRELIMINARY ISSUE



Reference:

Approvals: Process Plan: *mf* Date: *09-11-03* Tooling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4010-041	Rev. B prelim

100		0.00							
-----	--	------	--	--	--	--	--	--	--



HandThermo	Memo	0.00
Hand Finishing Thermoforming	Pick Kit	

OK 09/11/03

110		0.00
-----	--	------



HandThermo	Memo	0.00
Hand Finishing Thermoforming	Assemble as per Dwg. D4010-041 and QSI 002	

OK 09/11/03

120	QC2- Inspect parts off machine FAI/FAIB	0.00
-----	---	------



QC	Memo	0.00
Quality Control	QC 2- Inspect parts	

OK 09/11/03

**ENGINEERING
 APPROVAL**

Location

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 53391

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Item ID: D4010-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Bearpaw Assembly

Start Date: 11/3/2009 Start Qty: 2.00



Cust Item ID:

Required Date: 11/4/2009 Req'd Qty: 2.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

22/11/03

10/11/03

Memo

0.00

QC5-Inspect part completeness to step on W/O

140



Packaging

Packaging

Identify as per dwg & Stock Location: _____

0.00

*SENT TO CALGARY ATTN: DAVID SHEPHERD
FOR OCN # 09-648P.*

Memo

0.00

PD0324A DCA

150



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

11.09.11.03 Prototype

~~POSITIVE RECALL~~

EFFECTIVE

AUTH

RELEASED

DATE

*RETURNED TO DART
HAWKESBURY + IDENTIFIED
"FOR ENG USE ONLY"*

06.11.27

11.09.12.16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

November 03, 2009 11:35:37 AM

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Work Order ID: 53391



Parent Item: D4010-041



Parent Item Name: Bearpaw Assembly

Start Date: 11/3/2009

Required Date: 11/4/2009

Comments: IPP Rev B 09/11/03 Drawing changed to accomidate OEM and Dart Skidtube.
DL. Verified by:

Start Qty: 2.00

Required Qty: 2.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN3C5A		Purchased	No			100	Each	542.0000	10.0000			
Bolt												

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST	542	
111424	8	
111707	69	
112314	1	
112641	464	

AN4C6A Purchased No

100 Each 406.0000 4.0000



Bolt

10. 09/11/03

Warehouse Loc Qty Loc Code

Location

OFFSHORE

FG	4	
103344	4	

Main Warehouse

ST	402	
111295	0	
111724	2	
112759	200	
112794	200	

COMPUTER
STOCK ERROR.
PLEASE ADJUST.

4 09/11/03

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Page 2

Work Order ID: 53391

Parent Item: D4010-041

Parent Item Name: Bearpaw Assembly


Comments: IPP Rev B 09/11/03 Drawing changed to accomidate OEM and Dart Skidtube.
DL. Verified by:

Start Date: 11/3/2009

Required Date: 11/4/2009

Start Qty: 2.00

Required Qty: 2.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN970-4		Purchased	No			100	Each	443.0000	6.0000			
												
Washer												




Warehouse
Location

Loc Qty

Loc Code

Main Warehouse

ST	443
104885	3
107242	3
107715	1
108077	2
108377	19
111724	3
112082	5
112794	9
112933	98
112991	300

D4010-1	Manufactured	No				100	Each	0.0000	2.0000			
												
Bearpaw												
D4013-041	Manufactured	No				100	Each	0.0000	2.0000			
												
Wearplate Assembly												
D4015-041	Manufactured	No				100	Each	0.0000	10.0000			
												
Wearbar Weldment												

M 53393

M 53376

~~100~~

Loc Qty.

(X10) Batch 53252.
DL

6 Sh. 09/11/03
x2 Sh. 09/11/03
x2 Sh. 09/11/03
10 Sh. 09/11/03

November 03, 2009 11:35:37 AM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NOTE: Date & initial all entries

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Parent Item Name: Bearpaw Assembly



Start Date: 11/3/2009

Required Date: 11/4/2009

Comments: IPP Rev B 09/11/03 Drawing changed to accomidate OEM and Dart Skidtube.
DL. Verified by:

Start Qty: 2.00

Required Qty: 2.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MS21043-3		Purchased	No			100	Each	5,063.000	10.0000			
												
Nut												

Warehouse Loc Qty Loc Code
Location

OFFSHORE

FG 80

103691 80

Main Warehouse

ST 4983

111819 78

112243 39

112314 4866

MS21043-4 Purchased No 100 Each 1,005.000 10.0000



Nut

Warehouse Loc Qty Loc Code
Location

OFFSHORE

FG 40

104603 40

Main Warehouse

ST 965

112243 2

112314 663

112492 300

10 Sh 09/11/03

10 Sh 09/11/03

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Shop Packet Print

Page 3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Parent Item Name: Bearpaw Assembly

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Required Date: 11/4/2009

Comments: IPP Rev B 09/11/03 Drawing changed to accomidate OEM and Dart Skidtube.
DL. Verified by:

Start Qty: 2.00

Required Qty: 2.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
MS21043-6		Purchased	No			100	Each	1,040.000	8.0000			
NUT												

Warehouse Loc Qty Loc Code
Location

Main Warehouse

ST 1040

111424 40

112314 1000

NAS1515H4L

Purchased

No

100

Each

462.0000

4.0000



WASHER

Warehouse Loc Qty Loc Code
Location

OFFSHORE

FG 40

103691 40

Main Warehouse

ST 422

111359 22

112492 400

8 DL 09/10/03

24 DL 09/10/03

November 03, 2009 11:35:37 AM

Shop Packet Print

Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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November 03, 2009 11:35:37 AM

Page 5

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Parent Item: D4010-041



Parent Item Name: Bearpaw Assembly

Start Date: 11/3/2009

Required Date: 11/4/2009

Comments: IPP Rev B 09/11/03 Drawing changed to accomidate OEM and Dart Skidtube.
DL. Verified by:

Start Qty: 2.00

Required Qty: 2.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
NAS1515H6L		Purchased	No			100	Each	96.0000	8.0000			
WASHER												

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

96

18918

96

8 DL 09/10/03

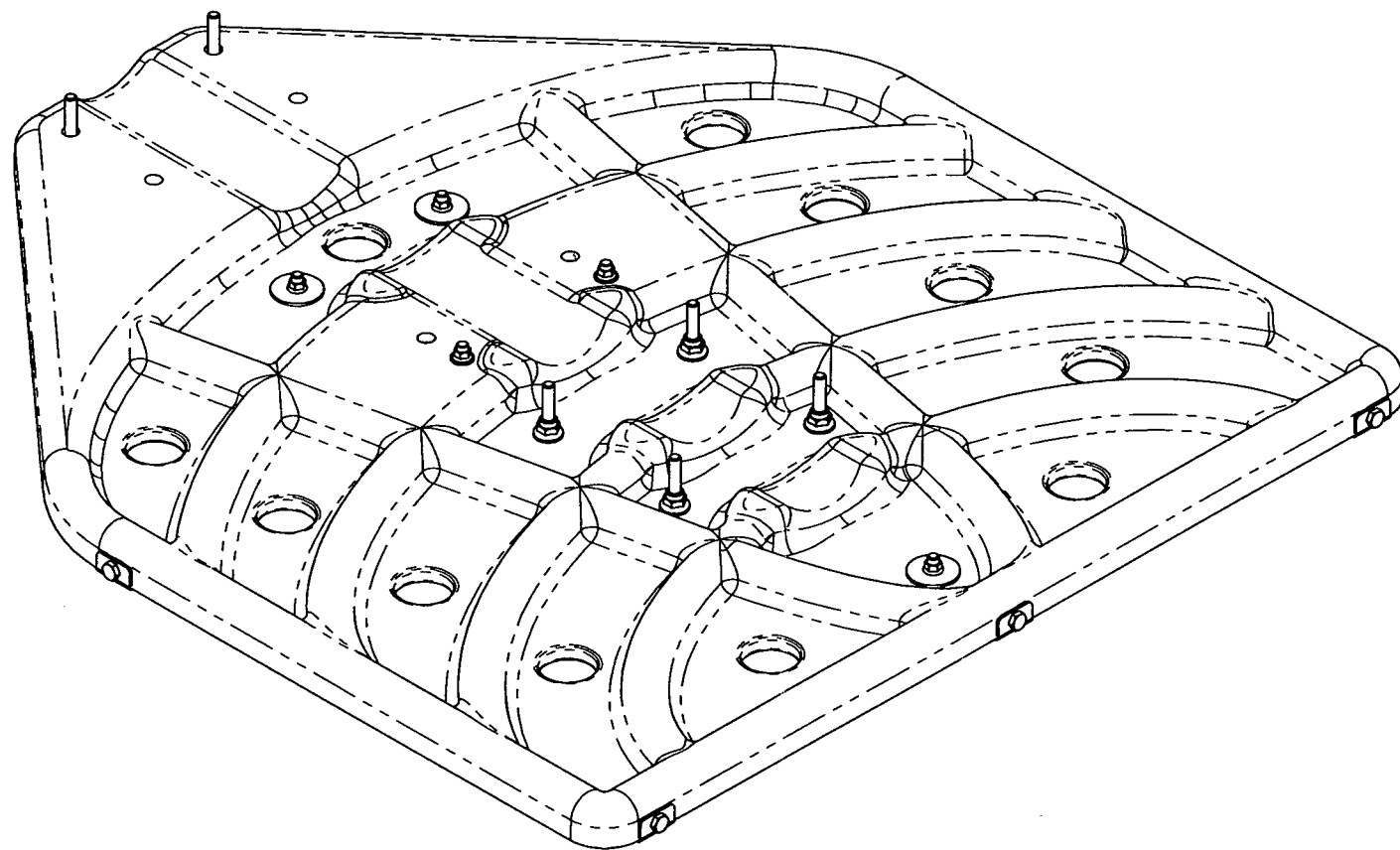
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

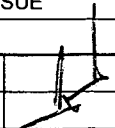
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D4010-041 BEARPAW ASSEMBLY (407)

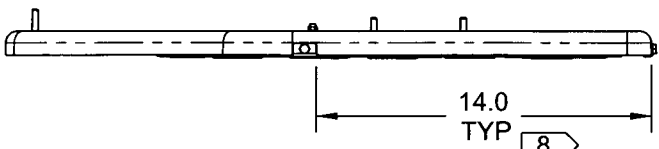
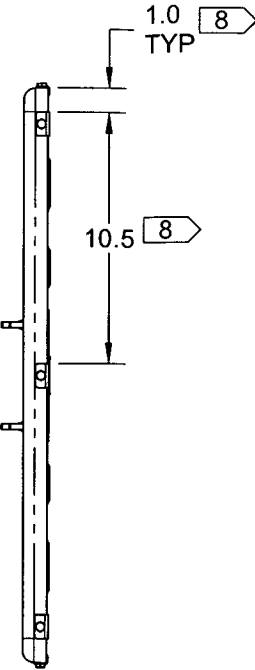
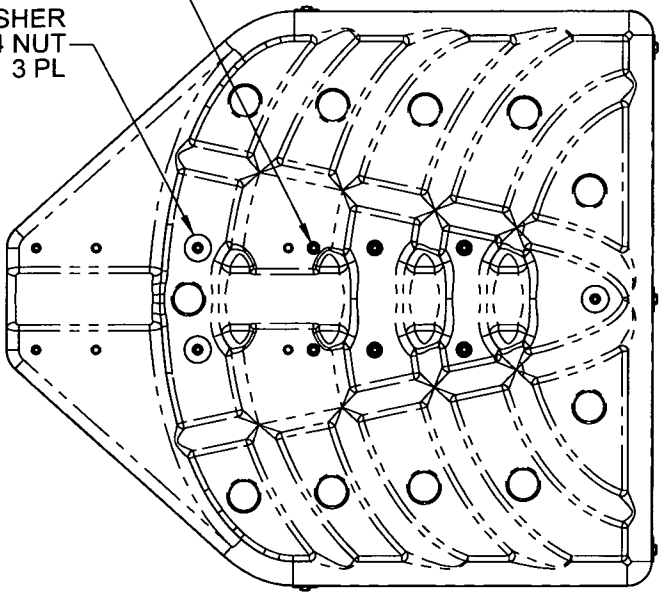
PRELIMINARY ISSUE
09.11.02
PER ECO # 09.6980

B	REDESIGNED; ADDED PROVISIONS FOR COMPATIBILITY WITH OEM SKIDTUBES/SADDLES; REDEFINED SOME TOLERANCE	MB	09.11.02
A	NEW ISSUE	MB	09.10.22
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN			
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D4010-041	SHEET 1 OF 3
APPROVED		TITLE	SCALE
DE APPR.		BEARPAW (407)	NTS
DATE	09.11.02	COPYRIGHT © 2009 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

ITEM	QTY -041	P/N	DESCRIPTION
1	X	D4010-041	BEARPAW ASSEMBLY (407)
11	1	D4010-1	BEARPAW
12	1	D4013-041	WEARPLATE ASSEMBLY
13	5	D4015-041	WEARBAR
21	5	AN3C5A	BOLT
22	2	AN4C6A	BOLT
23	3	AN970-4	WASHER
24	5	MS21043-3	NUT
25	5	MS21043-4	NUT
26	4	MS21043-6	NUT
27	2	NAS1515H4L	WASHER
28	4	NAS1515H6L	WASHER

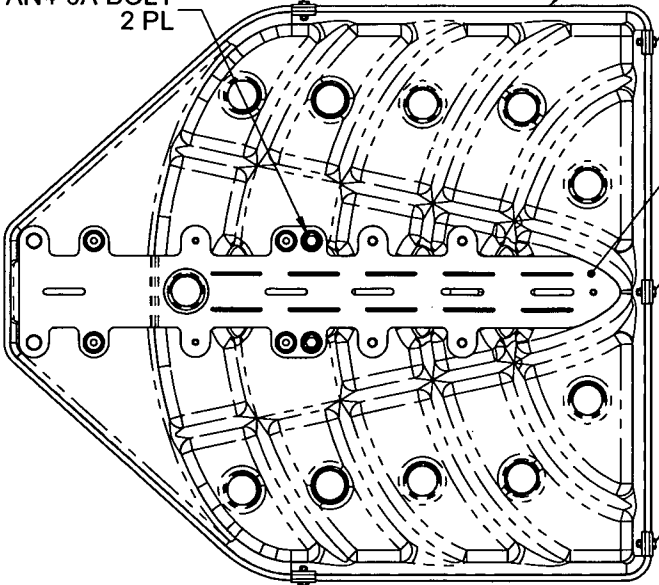
MS21043-4 NUT
NAS1515H4L WASHER
2 PL

AN970-4 WASHER
MS21042L4 NUT
3 PL



AN3C5A BOLT
D4015-041 WEARBAR
MS21043-3 NUT

AN4-6A BOLT
2 PL



D4010-1
BEARPAW

AN3C5A BOLT
D4015-041 WEARBAR
MS21043-3 NUT

D4013-041 WEARPLATE
ASSEMBLY

AN3C5A BOLT
D4015-041 WEARBAR
MS21043-3 NUT

AN3C5A BOLT
D4015-041 WEARBAR
MS21043-3 NUT

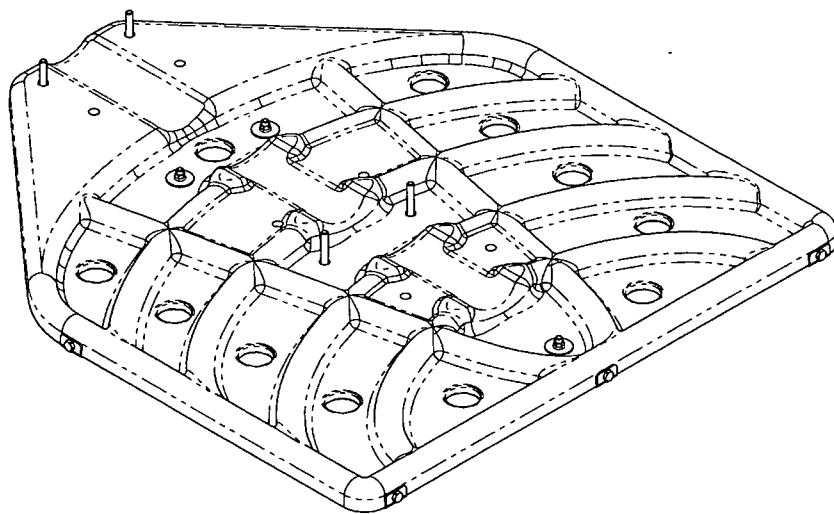
AN3C5A BOLT
D4015-041 WEARBAR
MS21043-3 NUT

D4010-041 BEARPAW ASSEMBLY (407)

PRELIMINARY ISSUE
10.11.03
PTE EUNH 09-698P

- D4010-041 NOTES:
- 1) MATERIAL: N/A
 - 2) FINISH: N/A
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 9.67 lbs
 - 8) LOCATE D4015-041 (ITEM 5) AS SHOWN AND TRANSFER DRILL $\varnothing 0.191$ " HOLE FROM D4015-1 TO D4010-1 BEARPAW AND FASTEN USING PRESCRIBED HARDWARE.
 - 9) TORQUE ON NUTS:
AN3 = 15-20 in-lb
AN4 = 50-70 in-lb
AN6 = 95-110 in-lb

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED	ALS	DRAWING NO.	REV. B
MFG. APPR.	DS	D4010-041	SHEET 2 OF 3
APPROVED	140	TITLE	SCALE
DE APPR.		BEARPAW (407)	NTS
DATE	09.11.02	COPYRIGHT © 2009 BY DART AEROSPACE LTD	
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D4010-041 BEARPAW ASSEMBLY (407)

53391

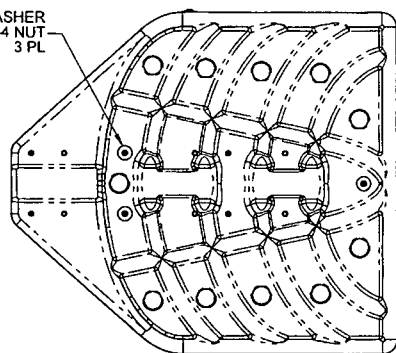
RELEASED
2009-11-26
MB

C	OPTIMIZED DESIGN BASED ON FUNCTIONALITY AND TO EASE MANUFACTURING	MB	09.11.10
B	REDESIGNED: ADDED PROVISIONS FOR COMPATIBILITY WITH OEM SKIDTUBES/SADDLES; REDEFINED SOME TOLERANCE	MB	09.11.02
A	NEW ISSUE	MB	09.10.22
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	09.11.10		

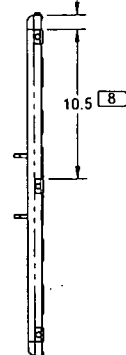
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. D4010	REV. C
TITLE BEARPAW (407)	SCALE NTS
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SHEET 1 OF 3

D3456-1 WASHER
MS21043-4 NUT
3 PL



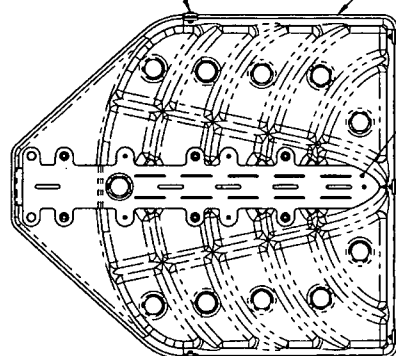
1.0
TYP



10.5

14.0
TYP

AN3C5A BOLT
D4015-041 WEARBAR
MS21043-3 NUT



D4010-1
BEARPAW

AN3C5A BOLT
D4015-041 WEARBAR
MS21043-3 NUT

D4013-041 WEARPLATE
ASSEMBLY

AN3C5A BOLT
D4015-041 WEARBAR
MS21043-3 NUT

AN3C5A BOLT
D4015-041 WEARBAR
MS21043-3 NUT

AN3C5A BOLT
D4015-041 WEARBAR
MS21043-3 NUT

D4010-041 BEARPAW ASSEMBLY (407)

ITEM	QTY -041	P/N	DESCRIPTION
1	X	D4010-041	BEARPAW ASSEMBLY (407)
3	3	D3456-1	WASHER
4	1	D4010-1	BEARPAW
5	1	D4013-041	WEARPLATE ASSEMBLY
6	5	D4015-041	WEARBAR
21	5	AN3C5A	BOLT
22	5	MS21043-3	NUT
23	3	MS21043-4	NUT

D4010-041 NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 9.41 lbs
- 8) LOCATE D4015-041 (ITEM 5) AS SHOWN AND TRANSFER DRILL Ø0.191" HOLE FROM D4015-041 TO D4010-1 BEARPAW AND FASTEN USING PRESCRIBED HARDWARE.
- 9) TORQUE: AN3 NUTS = 15-20 in-lb
AN4 NUTS = 50-70 in-lb

DESIGN	1.0	DART AEROSPACE LTD	
DRAWN	A	HAWKESBURY, ONTARIO, CANADA	
CHECKED	A/S	DRAWING NO. D4010	REV. C
MFG. APPR.	D		SHEET 2 OF 3
APPROVED	40	TITLE BEARPAW (407)	SCALE
DE APPR.	#		NTS
DATE	09.11.10	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PROPRIETARY AND IS SUPPLIED ON THE CAPTIONED CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

RELEASED
2009-11-24

